

DRAFT

Pickle Springs

Natural Area

Ten-Year Area Management Plan

FY 2016-2025



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OVERVIEW

- **Official Area Name:** Pickle Springs Natural Area, # 8509
- **Year of Initial Acquisition:** 1985
- **Acreage:** 256 acres
- **County:** Ste. Genevieve
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Protect the unique geological, aquatic and botanical features at Pickle Springs Natural Area (NA) and provide the public an opportunity to see and enjoy these features.
 - B. Desired Future Condition**

The desired future condition of Pickle Springs NA is healthy forest, woodland, glade and riparian ecosystems that provide a variety of public use opportunities.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. Priority Areas:** Pickle Creek Aquatic Conservation Opportunity Area, Hawn State Park/Pickle Springs Terrestrial Conservation Opportunity Area
- B. Natural Areas:** Pickle Springs Natural Area - This scenic 180 acre natural area contains fascinating sandstone rock formations including box canyons and wet weather waterfalls. Besides the geology, this site supports over 250 vascular plant species including many uncommon species that are considered glacial relicts. The cool, moist conditions of the canyon walls support over 40 species of liverworts – one of the most diverse spots for these primitive plants in Missouri. A good number of mosses and lichens also grow on the sandstone rocks. In the waters of Pickle Springs a type of crustacean, an amphipod, has been described that is known only from here. The site is also registered as a National Natural Landmark by the National Park Service.

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- B. Caves:** None
- C. Springs:** None

D. Other: Dry Sandstone Glade and Woodland, Dry Chert or Sandstone Woodland, Dry-Mesic Sandstone Woodland and Glade

III. Existing Infrastructure

- 1 parking lot
- 1 picnic table
- 2-mile hiking trail

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interest: Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. Easements: None

D. Cultural Resources Findings: None observed.

E. Hazards and Hazardous Materials: Steep bluffs along hiking trail

F. Endangered Species: Endangered species are not known from this site, but are found in the surrounding area. Area Managers should consult annually with the Natural History Biologist.

G. Boundary Issues: None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Pickle Springs NA contains approximately 256 acres of forest and woodlands. Woodland and forest management is focused on maintaining a natural community while providing for a variety of recreational opportunities. The designated natural area contains 180 acres, which is the portion of the area considered most unique.

Challenges and Opportunities:

- 1) Invasive exotic plants are a concern on this area. Invasive plants are not as beneficial for area wildlife as the native plants that they displace.
- 2) Maintaining a healthy forest/woodland ecosystem, balancing the needs of the unique plant and animal species found here, and the recreational use of the area, will continue to be a management challenge.

Management Objective 1: Maintain and enhance terrestrial communities.

Strategy 1: Monitor the area for invasive exotic species. Suppress any infestations that may develop using appropriate methods (Forestry).

Strategy 2: Monitor for forest health issues (Forestry).

Strategy 3: Monitor the areas known species of conservation concern, and report any new findings. (Forestry and Wildlife)

Strategy 4: Use sound forest management practices to improve forest/woodland health, wildlife habitat, and native plant communities. (Forestry)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Maintaining the riparian corridors.
- 2) Any natural resource management near Pickle Creek and Bone Creek would be a challenge due to the areas unique ecosystem and geology.

Management Objective 1: Maintain adequate riparian corridors along streams and waterways.

Strategy 1: Management of natural resources in the riparian areas will follow best management practices (as outlined in the publication, the 2014 *Missouri Watershed Protection Practice*). (Forestry)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Encouraging educational and interpretive opportunities will increase knowledge and appreciation of unique ecosystems.
- 2) Maintenance and erosion control on the popular hiking trail is an issue.
- 3) Building relationships with neighboring landowners is an opportunity that would benefit the area.

Management Objective 1: Improve educational and interpretive opportunities on Pickle Springs NA.

Strategy 1: Communicate to the general public the uniqueness of the area and the recreational opportunities found there (e.g., using brochures, Atlas database) (Forestry, Outreach and Education).

Strategy 2: Communicate to teachers, students, scout groups and youth groups the uniqueness of the area to facilitate as a possible destination for ecology classes, school programs and workshops (Outreach and Education).

Management Objective 2: Maintain the hiking trail for user access.

Strategy 1: Keep hiking trail clear of brush, downed trees, and litter. (Forestry)

Strategy 2: Explore methods to reduce soil erosion on the trail (Forestry and Design and Development).

Strategy 3: Keep trail properly blazed to improve the ability of users to navigate the trail (Forestry).

Management Objective 3: Facilitate a good working relationship with neighboring landowners.

Strategy 1: Work with neighbors to minimize any boundary, trespass, or other issues affecting Pickle Springs NA or neighboring private property (Forestry).

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure at current levels.
- 2) Acquisition of land.

Management Objective 1: Maintain area infrastructure in accordance with Department guidelines. (Forestry)

Strategy 1: Inspect area infrastructure regularly, and work to resolve any issues.

Strategy 2: Maintain boundary lines (Forestry).

Management Objective 2: As funding allows, acquire adjacent land when available.

Strategy 1: When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, protect the watershed, or meet other Department priorities (as identified in the annual Department land acquisition priorities), may be considered.

MANAGEMENT TIMETABLE

All strategies for this management plan are considered ongoing.

APPENDICES

Area Background:

Pickle Springs was named for William Pickle who purchased the land in 1848. The spring and associated forest land has an interesting history. Some timber was removed to provide lumber for the Plank Road that operated in the 1850s. Another harvest took place during the 1950s. Pickle Springs' unique geological and botanical features attracted biologists and geologists to study and catalog its ancient character. The area was also used as a commercial tourist attraction.

The area containing Pickle Springs was acquired by the Department in 1984 and a 2-mile hiking trail was officially dedicated and opened to the general public in 1986.

In 1987, two additional tracts were acquired to buffer the natural area and hiking trail. One 75-acre tract was harvested several years prior to the Department's acquisition. A second tract of 5 acres provided additional county road frontage.

Current Land and Water Types:

Land/Water Type	Acres	% of Area
Forest and Woodland	251	98
Glade	5	2
Total	256	100

References:

Missouri Department of Conservation. (2014). Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation. Jefferson City, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Current Vegetation Map

Figure 1: Area Map

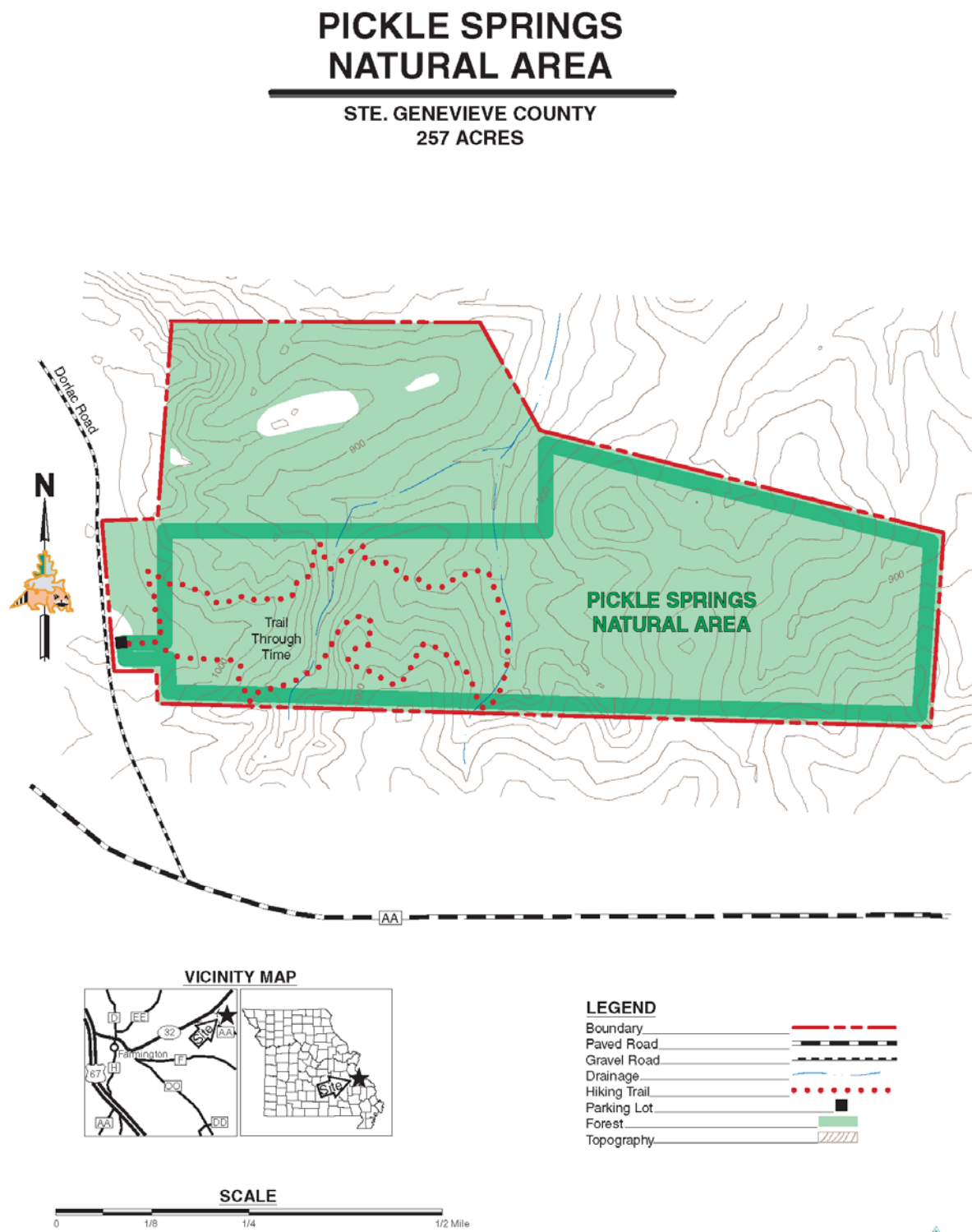


Figure 2: Aerial Map

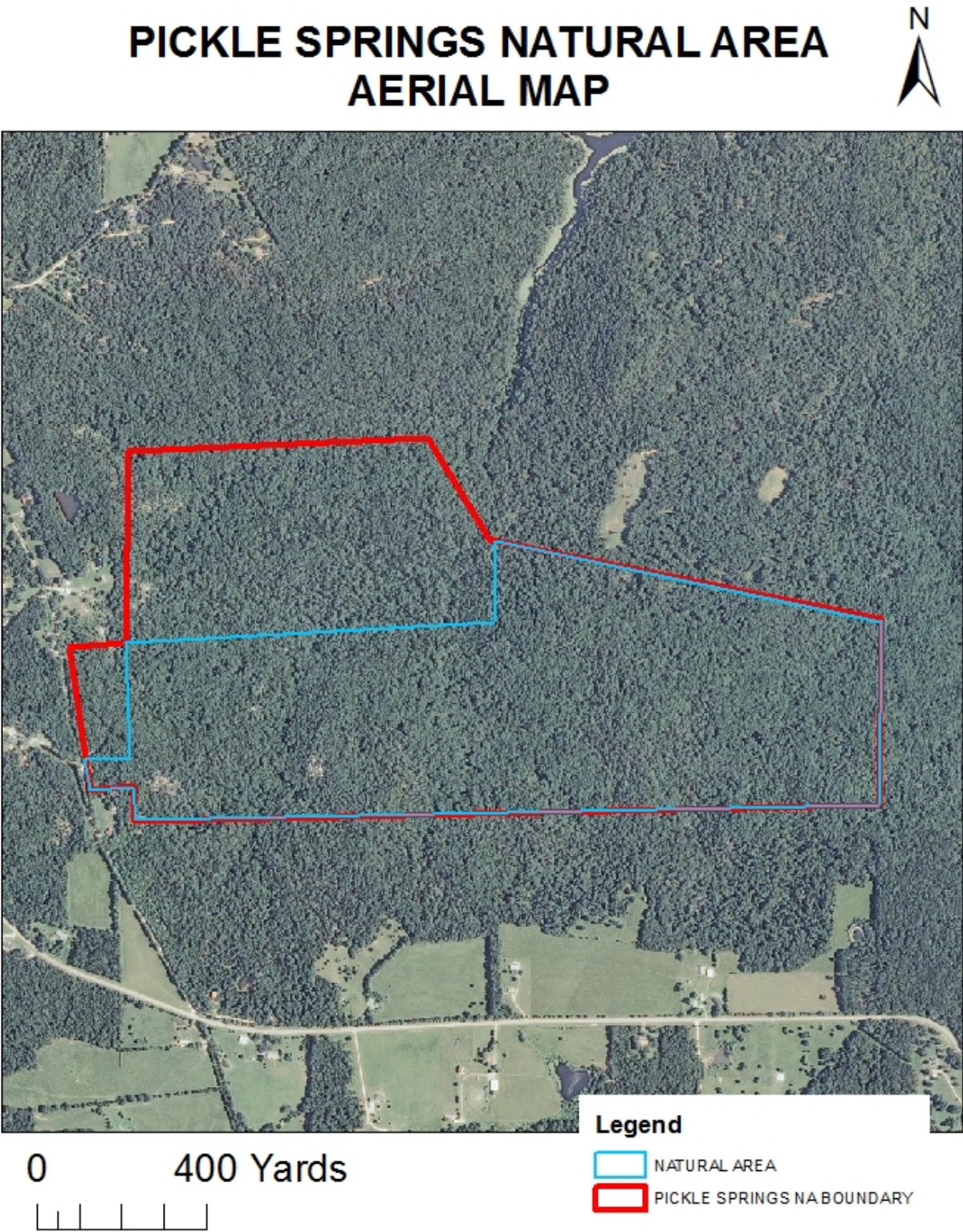


Figure 3: Topographic Map

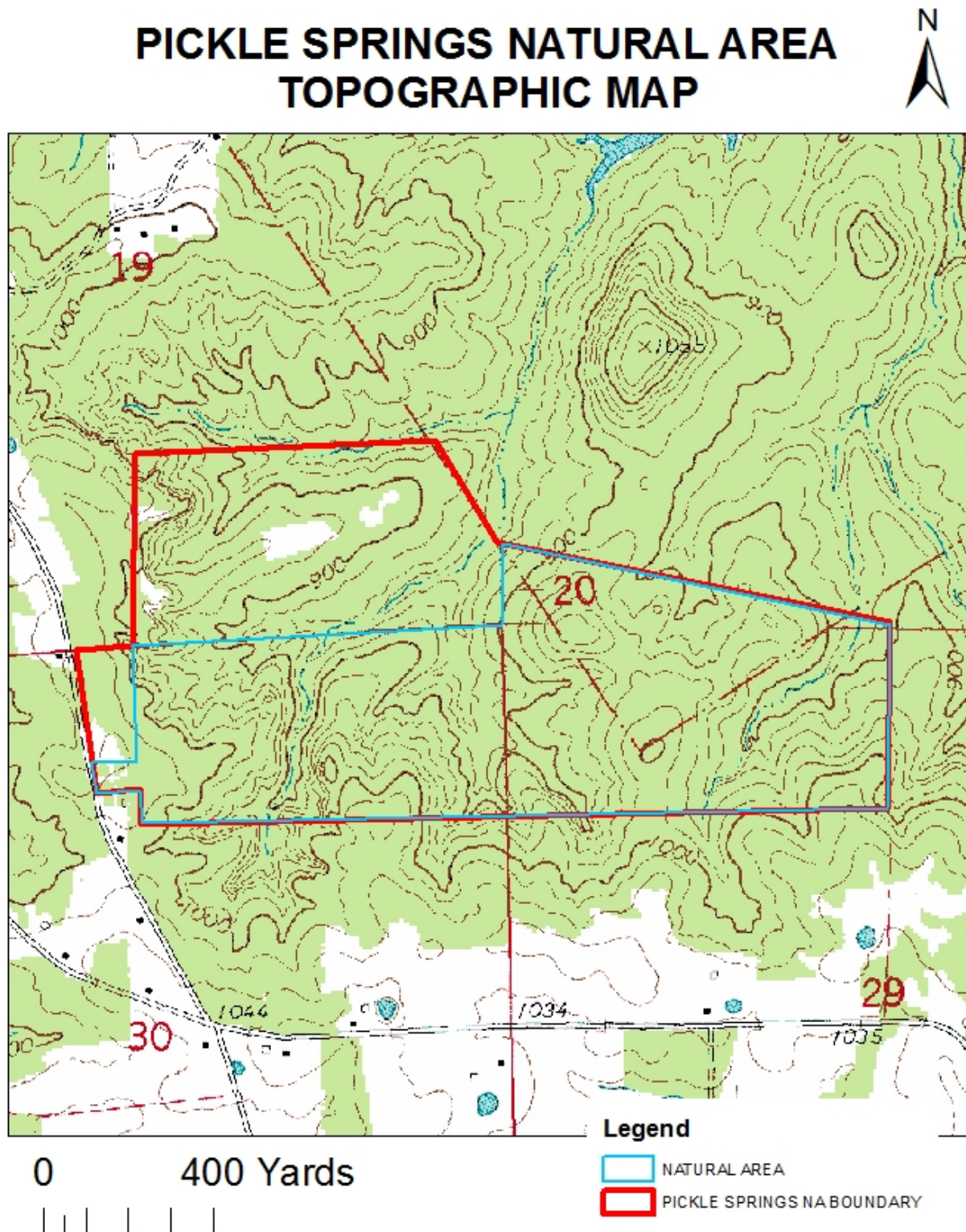
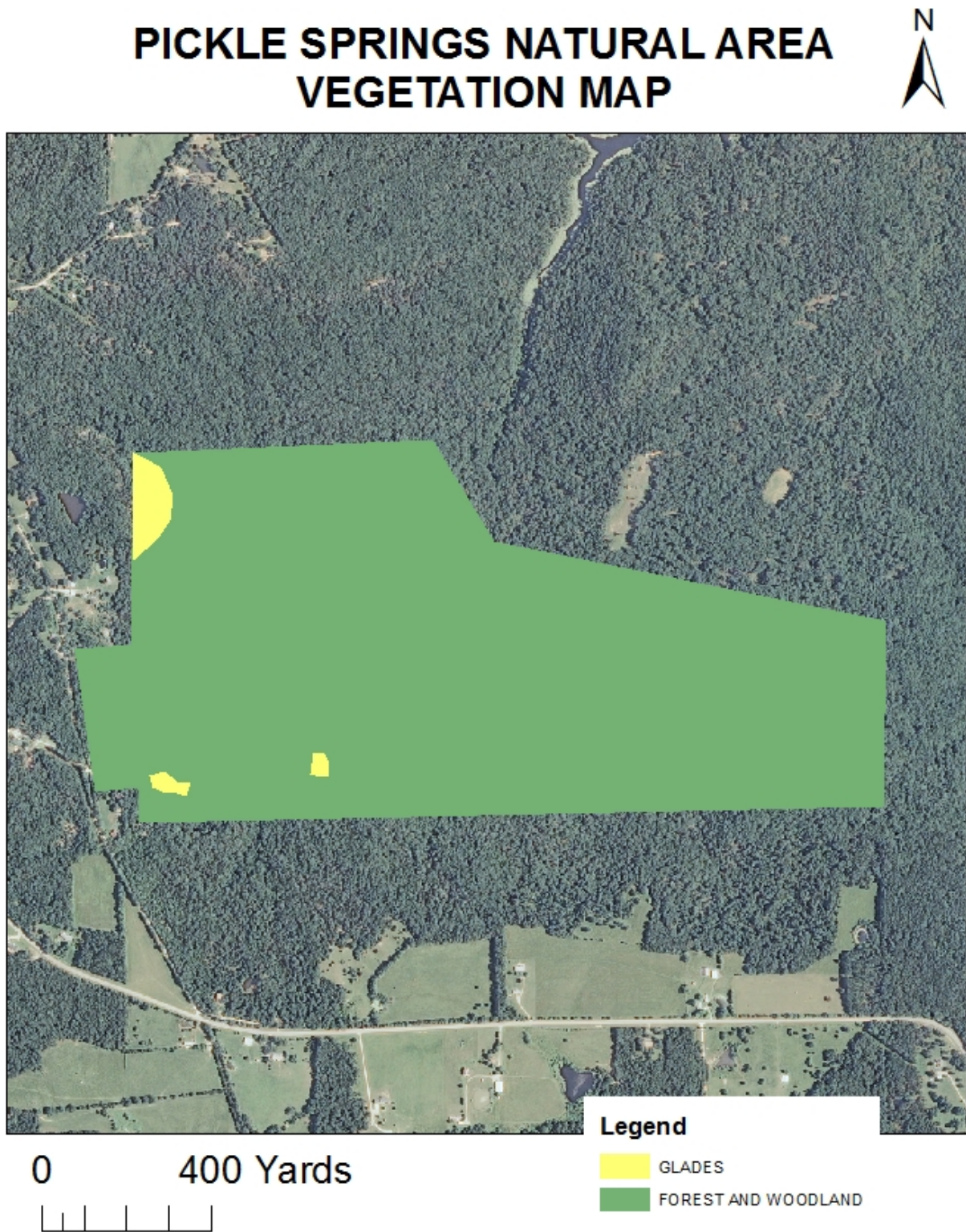


Figure 4: Current Vegetation Map



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